

REMARKS/ARGUMENTS

These remarks are in response to the Final Office Action dated January 26, 2006. Claims 1-47 are pending in the present application. Claims 1-47 have been rejected. Claims 1-47 remain pending. For the reasons set forth more fully below, Applicants respectfully submit that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

In the event, however, that the Examiner is not persuaded by Applicants' arguments, Applicants respectfully request that the Examiner enter the arguments to clarify issues upon appeal.

Claim Rejections - 35 U.S.C. §103

The Examiner has stated:

Claims 1-3, 5-12, 14-17, 19, 20-22, 24-28, 30, 32-42 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callendrier (US 6,122,978) in view of Matsuda et al. (US Patent 2002/0020959).

Regarding claims 1, 10, 20, 32-34, 40-42, 46 and 47 Callendrier teaches an apparatus and method comprising a mounting arrangement (Column 5, lines 36-40 and Figure 2) and at least one cantilevered roller shaft (20) comprises a distal end and a proximal end for advancing a document (10), wherein the proximal end is coupled to the frame of such that the distal end floats (As shown in Figure 1) and the at least one cantilevered roller shaft is supported only at one end (Figure 1). However, he does not explicitly disclose a bearing coupled to at least one cantilevered roller shaft and a spring coupled to the frame and the bearing. Matsuda et al. teaches an apparatus and methods for feeding sheets with a cantilevered roller (3, 4) with a bearing (10) coupled to the shaft (7) and a spring coupled to a plate (element 9a can be referred to as a frame).

It would have been obvious at the time the invention was made to a person of ordinary skill in the art to modify the invention as taught by Callendrier to include a bearing and spring as taught by Matsuda et al., since Matsuda et al. teaches that it is advantageous to provide a stable/supported relationship as a biasing force acts upon the shaft...

Claims 4, 13, 18, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Callendrier (US 6,122,978) in view of Matsuda et al. (US Patent 2002/0020959) as applied to claim 1, 10 and 20 above, and further in view of Applicant Admitted Prior Art ("AAPA").

Callendrier and Matsuda et al. both teach the claimed apparatus and method with the exception of a frame comprising a main portion and front portion. AAPA teaches a printer with a front portion (54) and a main portion (56, Page 2, Lines 15-16 and Figure 2). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention as taught by Matsuda et al. to include a main portion and front portion of a printer as taught by AAPA, since AAPA teaches that it is advantageous to provide a stable and a reliable feeding device.

Response to Arguments

Applicant's arguments filed 11/10/05 have been fully considered but they are not persuasive. With regards to applicant's comments on page 14, paragraph 3, the examiner notes that all the elements in Matsuda et al. are connected and/or coupled including the spring, bearing element and frame. If the elements were not coupled together the invention would not function properly. Also, the specification does not explicitly point out or describe how the spring is connected to the bearing and frame elements and figure 6 does not show an interconnection between the frame and bearing. Therefore, the claims will remain rejected over Callendrier in view of Matsuda et al.

Applicants respectfully disagree with the Examiner's rejections. The present invention provides a document feeder device. The document feeder device includes a frame and at least one cantilevered roller shaft for advancing a document, where an unsupported end of the at least one cantilevered roller shaft floats, a bearing coupled to the at least one cantilevered roller shaft, and a spring coupled to the frame and the bearing. The document feeder device eliminates the need for a rigid frame to support the unsupported end. This decreases the cost of production by eliminating the need for additional frame hardware and/or more rigid frame hardware. (Abstract.) Callendrier in view of Matsuda does not teach or suggest these features, as discussed below.

Callendrier discloses a moving web tension monitoring apparatus of easily fabricated, relatively inexpensive and easily assembled construction including a cantilever mounted strain beam element coupled at the flexurable end thereof through a rigid coupling to one end of the support shaft for the web supporting guide roll. A twin beam type transducer having strain gauges at the flex points of the beams is coupled to the shaft supporting the moving web. The

strain gauges are located and electrically connected to measure the radial forces applied to the shaft by the web, independently of the length of the shaft. (Abstract.)

Applicants agree with the Examiner that Callendrier does not disclose a bearing coupled to at least one cantilevered roller shaft and a spring coupled to the frame and the bearing. The Examiner has relied on Matsuda to cure the defects of Callendrier. Applicants respectfully maintain that Matsuda does not disclose the “spring coupled to the frame and the bearing,” as recited in independent claims 1, 10, 20, 32, and 40.

Matsuda discloses a sheet feeding apparatus that feeds sheet media between a feed roller and a separating member pressed into contact with the feed roller, and separates and conveys sheet media held between the feed roller and the separating member one by one by utilizing differences in frictional coefficients between the feed roller, the separating member, and the sheet media. The sheet media are separated and conveyed while periodically changing the pressurizing force of the reverse roller against the feed roller. (Abstract.)

With regard to Applicants’ prior argument that the spring 13 of Matsuda does not couple to the frame 9a and to the bearing 10, but instead couples to a lever 12, the Examiner has noted that all of the elements in Matsuda are connected and/or coupled including the spring, bearing element, and frame. The Examiner has further asserted that if the elements were not coupled together, the invention would not function properly. However, even if the elements of Matsuda were coupled in some form, Matsuda does not explicitly teach or suggest that the spring is coupled to **both** the bearing **and** the frame. Matsuda states that the spring 13 produces “an upward biasing force P3 by which the pivoting end 12a of the lever 12 pushes up the bearing 10,” Matsuda does not explicitly show in Figure 1 or describe in the corresponding text where exactly

the other end of the spring 13 connects. Because the spring 13 acts upon the lever 12, which acts upon the bearing 10, it would not make sense that one end of the spring 13 connects to the lever 12 and that other end of the spring 13 connects to the bearing 10. Doing so would cancel the biasing force on the bearing 10. This clearly *teaches away* from a teaching or suggestion that the spring of Matsuda connects to the bearing of Matsuda.

The Examiner has noted that the specification of the present invention does not explicitly point out or describe how the spring is connected to the bearing and frame elements. However, page 9, lines 13-15, of the specification clearly states that the “tension spring 160 connects to the bearing 140” **and** “to the frame support 144.”

Therefore, Callendrier in view of Matsuda does not teach or suggest the present invention as recited in independent claims 1, 10, 20, 32, and 40, and these claims are allowable over Callendrier in view of Matsuda.

Dependent claims 2-9, 11-19, 21-31, 33-39, and 41-47

Dependent claims 2-9, 11-19, 21-31, 33-39, and 41-47 depend from independent claims 1, 10, 20, 32, and 40, respectively. Accordingly, the above-articulated arguments related to independent claim 1, 10, 20, 32, and 40 apply with equal force to claims 2-9, 11-19, 21-31, 33-39, and 41-47, which are thus allowable over the cited references for at least the same reasons as claims 1, 10, 20, 32, and 40.

Conclusion

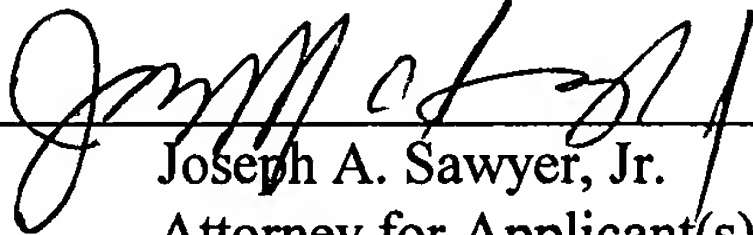
In view of the foregoing, Applicants submit that claims 1-47 are patentable over the cited references. Applicants, therefore, respectfully request reconsideration and allowance of the claims as now presented.

Applicants' attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

SAWYER LAW GROUP LLP

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Date



Joseph A. Sawyer, Jr.
Attorney for Applicant(s)
Reg. No. 30,801
(650) 493-4540